

Do You Know the Health Risks of Being Overweight?



U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES

WIN *Weight-control Information Network*

What are the risks to my health from being overweight?

Weighing too much may increase your risk for developing many health problems. If you are overweight or obese on a body mass index (BMI) chart (see page 2), you may be at risk for:

- Type 2 diabetes
- Heart disease and stroke
- Cancer
- Sleep apnea
- Osteoarthritis
- Gallbladder disease
- Fatty liver disease.

You can lower your health risks by losing as little as 10 to 20 pounds.

Type 2 diabetes

What is it?

Type 2 diabetes used to be called adult-onset diabetes or noninsulin-dependent diabetes. It is the most common type of diabetes in the U.S. Type 2 diabetes is a disease in which blood sugar levels are above normal. High blood sugar is a major cause of early death, heart disease, kidney disease, stroke, and blindness.

How is it linked to overweight?

More than 80 percent of people with type 2 diabetes are overweight. It is not known exactly why people who are overweight are more likely to suffer from this disease. It may be that being overweight causes cells to

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Body Mass Index Table

To use the table, find the appropriate height in the left-hand column labeled Height. Move across to a given weight. The number at the top of the column is the BMI at that height and weight. Pounds have been rounded off.

BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
Height (inches)								Body Weight (pounds)																
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191		
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198		
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204		
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211		
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218		
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225		
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232		
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240		
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247		
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255		
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262		
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270		
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278		
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286		
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294		
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302		
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311		
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319		
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328		

change, making them less effective at using sugar from the blood. This then puts stress on the cells that produce insulin (a hormone that carries sugar from the blood to cells) and makes them gradually fail.

What can weight loss do?

You can lower your risk for developing type 2 diabetes by losing weight and increasing the amount of physical activity you do. If you have type 2 diabetes, losing weight and becoming more physically active can help you control your blood

sugar levels. Losing weight and exercising more may also allow you to reduce the amount of diabetes medication you take.

Heart disease and stroke

What is it?

Heart disease means that the heart and circulation (blood flow) are not functioning normally. If you have heart disease, you may suffer from a heart attack, congestive heart failure, sudden cardiac

death, angina (chest pain), or abnormal heart rhythm. During a stroke, blood and oxygen do not flow normally to the brain, possibly causing paralysis or death. Heart disease is the leading cause of death in the U.S., and stroke is the third leading cause.

How is it linked to overweight?

People who are overweight are more likely to suffer from high blood pressure, high levels of triglycerides (blood fats) and LDL cholesterol (a fat-like substance often called the "bad cholesterol"), and low levels of HDL cholesterol (the "good cholesterol"). These are all risk factors for heart disease and stroke. In addition, people with more body fat have higher blood levels of substances that cause inflammation. Inflammation in blood vessels and throughout the body may raise heart disease risk.

What can weight loss do?

Losing 5 to 15 percent of your weight can lower your chances for developing heart disease or having a stroke. If you weigh 200 pounds, this means losing as little as 10 pounds. Weight loss may improve your blood pressure, triglyceride, and cholesterol levels; improve how your heart works and your blood flows; and decrease inflammation throughout your body.

Cancer

What is it?

Cancer occurs when cells in one part of the body, such as the colon, grow abnormally or out of control and possibly spread to other parts of the body, such as the liver. Cancer is the second leading cause of death in the U.S.

How is it linked to overweight?

Being overweight may increase the risk of developing several types of cancer, including cancers of the colon, esophagus, and kidney. Overweight is also

linked with uterine and postmenopausal breast cancer in women. Gaining weight during adult life increases the risk for several of these cancers. Being overweight also may increase the risk of dying from some cancers. It is not known exactly how being overweight increases cancer risk. It may be that fat cells make hormones that affect cell growth and lead to cancer. Also, eating or physical activity habits that may lead to being overweight may also contribute to cancer risk.

What can weight loss do?

Avoiding weight gain may prevent a rise in cancer risk. Weight loss, and healthy eating and physical activity habits, may lower cancer risk.

Sleep apnea

What is it?

Sleep apnea is a condition in which a person stops breathing for short periods during the night. A person who has sleep apnea may suffer from daytime sleepiness, difficulty concentrating, and even heart failure.

How is it linked to overweight?

The risk for sleep apnea is higher for people who are overweight. A person who is overweight may have more fat stored around his or her neck. This may make the airway smaller. A smaller airway can make breathing difficult, loud (snoring), or stop altogether. In addition, fat stored in the neck and throughout the body can produce substances that cause inflammation. Inflammation in the neck may be a risk factor for sleep apnea.

What can weight loss do?

Weight loss usually improves sleep apnea. Weight loss may help to decrease neck size and lessen inflammation.

Osteoarthritis

What is it?

Osteoarthritis is a common joint disorder. With osteoarthritis, the joint bone and cartilage (tissue that protects joints) wear away. Osteoarthritis most often affects the joints of the knees, hips, and lower back.

How is it linked to overweight?

Extra weight may place extra pressure on joints and cartilage, causing them to wear away. In addition, people with more body fat may have higher blood levels of substances that cause inflammation. Inflammation at the joints may raise the risk for osteoarthritis.

What can weight loss do?

Weight loss can decrease stress on your knees, hips, and lower back, and lessen inflammation in your body. If you have osteoarthritis, losing weight may help improve your symptoms.

Gallbladder disease

What is it?

Gallstones are clusters of solid material that form in the gallbladder. They are made mostly of cholesterol and can sometimes cause abdominal or back pain.

How is it linked to overweight?

People who are overweight have a higher risk for developing gallbladder disease and gallstones. They may produce more cholesterol, a risk factor for gallstones. Also, people who are overweight may have an enlarged gallbladder, which may not work properly.

What can weight loss do?

Weight loss—especially fast weight loss (more than 3 pounds per week) or loss of a large amount of weight—can actually increase your chance of developing gallstones. Modest, slow weight loss of about 1/2 to 2 pounds a week is less likely to cause gallstones.

Fatty liver disease

What is it?

Fatty liver disease occurs when fat builds up in the liver cells and causes injury and inflammation in the liver. It can sometimes lead to severe liver damage, cirrhosis (build-up of scar tissue that blocks proper blood flow in the liver), or even liver failure. Fatty liver disease is like alcoholic liver damage, but it is not caused by alcohol and can occur in people who drink little or no alcohol. The National Digestive Diseases Information Clearinghouse (NDDIC) at <http://digestive.niddk.nih.gov/ddiseases/pubs/nash/> has more information on fatty liver disease or nonalcoholic steatohepatitis (NASH).

How is it linked to overweight?

People who have diabetes or "pre-diabetes" (when blood sugar levels are higher than normal but not yet in the diabetic range) are more likely to have fatty liver disease than people without these conditions. And people who are overweight are more likely to have diabetes (see Type 2 diabetes above). It is not known why some people who are overweight or diabetic get fatty liver and others do not.

What can weight loss do?

Losing weight can help you control your blood sugar levels. It can also reduce the build-up of fat in your liver and prevent further injury. *People with fatty liver disease should avoid drinking alcohol.*

How can I lower my health risks?

If you are overweight, losing as little as 5 percent of your body weight may lower your risk for several diseases, including heart disease and diabetes. If you weigh 200 pounds, this means losing 10 pounds. Slow and steady weight loss of 1/2 to 2 pounds per week, and not more than 3 pounds per week, is the safest way to lose weight.

To lose weight and keep it off over time, try to make long-term changes in your eating and physical activity habits. Choose healthy foods, such as vegetables, fruits, whole grains, and low-fat meat and dairy products, more often and eat just enough food to satisfy you. Try to do at least 30 minutes of moderate-intensity physical activity—like walking—on most days of the week, preferably every day. To lose weight, or to maintain weight loss, you may need to do more than 30 minutes of moderate physical activity daily.

The Weight-control Information Network (WIN) offers many fact sheets to help you eat better and increase your physical activity. WIN fact sheets are listed below.

Active at Any Size describes the benefits of being physically active no matter what a person's size, and presents a variety of activities that very large people can enjoy safely.

Just Enough for You: About Food Portions describes the difference between a portion—the amount of food a person chooses to eat—and a measured serving. It offers tips for judging portion sizes and for controlling portions at home and when eating out.

Walking...A Step in the Right Direction offers tips for getting started on a walking program and illustrates warm-up stretching exercises. It also includes a sample walking program.

Weight and Waist Measurement Tools for Adults offers guidance on determining whether your weight is healthy.

Weight Loss for Life contains information about safe and effective weight loss programs and offers tips to help you create your own weight loss plan.

Additional resources

National Cancer Institute

NCI Public Inquiries Office

Suite 3036A

6116 Executive Boulevard, MSC8322

Bethesda, MD 20892-8322

Phone: 1-800-4-CANCER (1-800-422-6237)

TTY: 1-800-332-8615

www.nci.nih.gov

National Diabetes Information Clearinghouse

1 Information Way

Bethesda, MD 20892-3560

Phone: 1-800-860-8747 or (301) 654-3327

<http://diabetes.niddk.nih.gov>

National Digestive Diseases Information Clearinghouse

2 Information Way

Bethesda, MD 20892-3570

Phone: 1-800-891-5389 or (301) 654-3810

<http://digestive.niddk.nih.gov>

National Heart, Lung, and Blood Institute

NHLBI Health Information Center

P.O. Box 30105

Bethesda, MD 20824-0105

Phone: (301) 592-8573

TTY: (240) 629-3255

www.nhlbi.nih.gov

National Institute of Arthritis and Musculoskeletal and Skin Diseases

Information Clearinghouse

1 AMS Circle

Bethesda, Maryland 20892-3675

Phone: 1-877-22-NIAMS (1-877-226-4267) or (301) 495-4484

TTY: (301) 565-2966

www.nhlbi.nih.gov



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The Weight-control Information Network (WIN) is a service of the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, which is the Federal Government's lead agency responsible for biomedical research on nutrition and obesity. Authorized by Congress (Public Law 103-43), WIN provides the general public, health professionals, the media, and Congress with up-to-date, science-based health information on weight control, obesity, physical activity, and related nutritional issues.

WIN answers inquiries, develops and distributes publications, and works closely with professional and patient organizations and Government agencies to coordinate resources about weight control and related issues.

Publications produced by WIN are reviewed by both NIDDK scientists and outside experts. This publication was reviewed by Rachel Ballard-Barbash, M.D., M.P.H., Associate Director, Applied Research Program, National Cancer Institute; Robert Eckel, M.D., Professor of Medicine, Physiology, and Biophysics, University of Colorado Health Sciences Center; and Arthur Frank, M.D., Medical Director, The George Washington University Weight Management Program.

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